# HILL'S ON CUPPING.

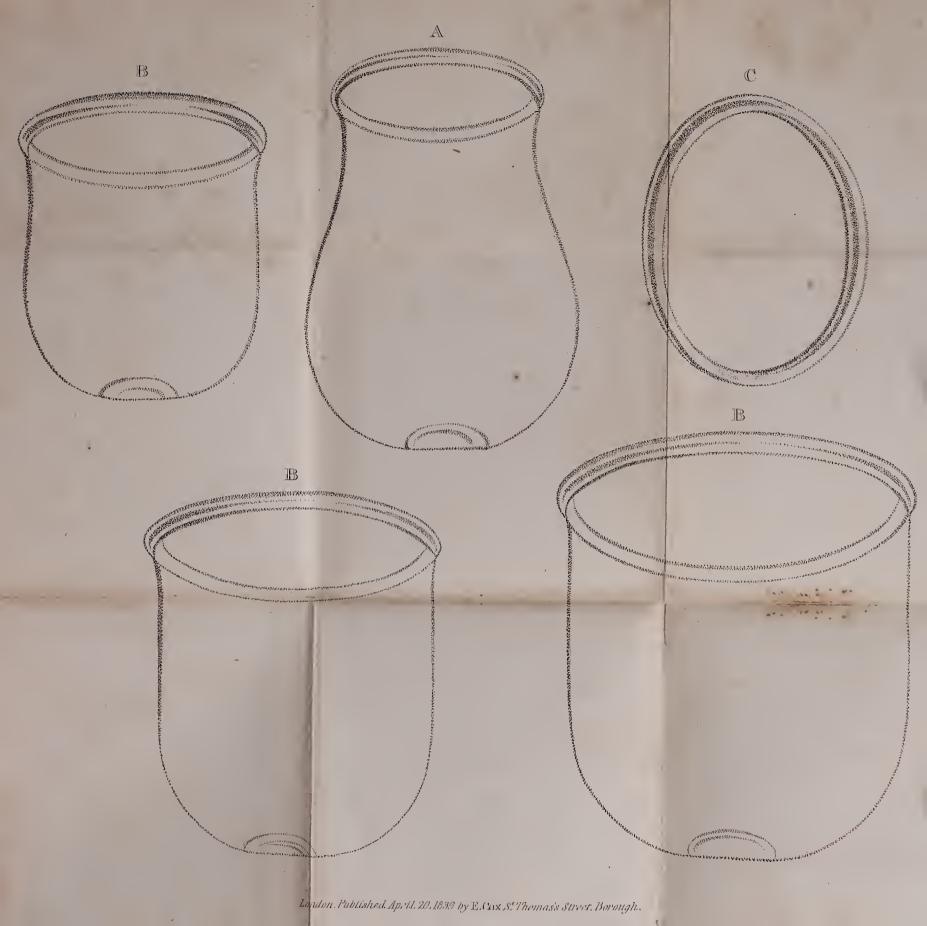
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## A TREATISE

ON THE

#### **OPERATION**

OF

# CUPPING.

SECOND EDITION, ENLARGED.

BY MONSON HILLS,
CUPPER TO GUY'S HOSPITAL.

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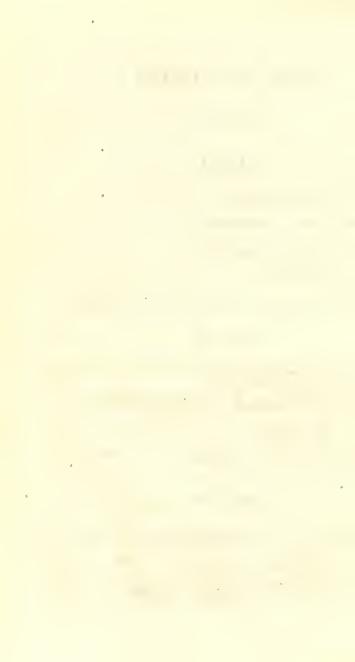
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#### PREFACE

TO THE

# SECOND EDITION.

A SECOND Edition of this little work has been called for by the kind reception and indulgence which the first experienced; and not perhaps from any genuine merit of the publication. It is true that a clear and simple description of the operation of Cupping was desired, and without pretending to originality, or much invention, I have endeavoured to supply the demand. What

rules soever I have herein thought necessary to recommend, I submit them as the result of a long practice in the largest Hospital of London, where above six thousand Patients undergo the operation yearly. Whenever these descriptions or rules may appear short, or be deemed insufficient, I hope it will be remembered, that I put them forth without consulting other works, neither referring to other histories, nor presuming to invade the offices of the physician and surgeon, by prescribing when and where the operation is to be performed, but only how. It might have been a pleasant occupation to have investigated the old methods of Cupping, but ample histories of Surgery by eminent professors, have fully related them. I beg to add, that I must attribute the success of my

first effort to the name and celebrity of the noble institution I have the honor to serve; and also to commend the enlarged edition, to the kindness of those gentlemen who would bestow some small study upon the subject, and an impartial perusal by all who would make it a sole occupation.

MONSON HILLS,

GUY'S HOSPITAL.



# OPERATION OF CUPPING.

#### GENERAL RULES.

For the successful and comfortable operation of cupping, some general rules, as in all operations, are more than convenient,—they are necessary.

A person about to be cupped, is often needlessly alarmed by the arrival of his operator, with a capacious box of instruments; and

he measures the severity of the pain he is about to undergo, by the seeming multitude of instruments required to inflict it. If, on the contrary, the few implements are carried in the pocket, and produced when about to be used unobserved by the patient, this evil is easily avoided.

It is of importance to keep patients, while under the operation of cupping, as warm as is convenient, and not needlessly expose them to the cold air, as they are thereby rendered uncomfortable and the cir-

culation of blood, upon the surface of the skin, is very much checked, and the cupping is of course less beneficial.

A general regard should be paid to the usual track of the superficial arteries and large veins which course near the surface, within the range of the lancets, as we are careful so to direct the incisions, that we may divide the former and avoid the latter.

Important structures slightly defended should also be remembered,

(as capsular ligaments, that the lancets may not be set to an incautious depth.

The position of the patient need not be particularly regarded, provided the part be fully exposed, so that the glasses may be efficiently applied; the comfort of the patient is of more importance than any advantage which may be supposed to be gained by any particular inclination, provided the muscles are relaxed.

In very few patients will it be

necessary to prepare the part by fomentation, or sponging it with hot water, but if the surface generally, be particularly cold and bloodless, this precaution may be adopted.

It may be remarked, that some objections to cupping are often made by persons who dislike the disfigurement of the scars, and some few suggestions upon the best methods for avoiding those really unsightly seams may not be considered out of place here.

First, instead of employing three or four glasses to obtain the required quantity of blood, one glass re-applied over the same incisions three or four times, will obtain the same quantity of blood; and thus avoid the appearance of numerous cicatrices; and secondly, when the blood is to be drawn from near the head, if the glasses be applied as high as possible, the hair either hides the scars, or, if a little of it be removed, its growth will do so in a few days.

Some cuppers have recommended

us to warm the glasses previous to their application, by immersing them in hot water, and also to prepare the scarificator, by warming it by the torch or fire, to remove the unpleasant sensation of coldness: but I submit that this only prolongs the operation, alarms the patient, and, in the case of the scarificator, may be remedied by setting the lancets deeper than the scarifications are required, and guarding them, by placing the middle finger of the hand, holding it a little below its face, which prevents its contact with the skin, and thus the chill

of the instrument will be effectually avoided.

I may now say something generally as to the application of the instruments. Three, four, and five ounces of blood may be obtained by each glass, and three of these applied once will commonly draw about twelve or fourteen ounces of blood from most patients; but if more than this quantity is required, two glasses will be sufficient, applied a second time over the same scarifications, to obtain from fourteen to sixteen ounces, or even more.

The scarificators should always possess a keen edge, without the slightest taint of rust; if this be not the case, the operator will be often completely foiled in his endeavours to procure blood, as the lancets, in that case, would rather tear than divide the vessels, and as a consequence, a coagulum would be quickly formed in their mouths.

The integuments on different parts of the body differing very much in thickness, a proportionate depth of lancet should always be maintained. On the temple, for

instance, about one-eighth of an inch is sufficient; on the other hand, where the full sized scarificator is used, a quarter of an inch is required.

When very fat persons require cupping, the incisions should be made rather deeper than usual, as there are few bleeding vessels in the fat; at the same time it must be remembered, that the glasses ought not to be exhausted very completely, for if they be, the skin will rise so much into the glass, that the rim of it will form a ligature round the

raised flesh, and entirely prevent the flow of blood. It is of importance to remember this fact, more particularly, as we are most frequently called upon to perform cupping upon stout and plethoric persons. All scarifications may be recommended to be made obliquely; I have found that the scars are less visible in this direction, and that generally, more blood is obtained.

#### INSTRUMENTS.

There are three instruments essentially necessary in cupping; namely, Scarificator, Torch, and

Glass; besides these, there are the appendages, Sponge and Spirit Bottle; and on these several instruments I will proceed to make some preliminary observations, illustrating the particular use of each, and introduce any improvement I may consider important.

#### SCARIFICATOR,

I shall not enter on any particular description of this instrument as it is so well known, and it would be needlessly detaining the reader from the consideration of the more important fact, viz. its use.

The old scarificators generally contained from fifteen to sixteen lancets, of a spear pointed shape, and those commonly in use at the present time have from ten to twelve lancets, in the shape of a crescent. The disadvantages of the former instrument are, that mere punctures instead of clean incisions are made, and, consequently, a tedious re-application of glasses, and a painful repetition of scarifications are necessary to obtain, by slow and miserable instalments, the required amount of blood. These weighty objections are quite sufficient to induce us to lay aside the spear pointed, and betake ourselves to the improved, crescentshaped lancets. The lancets should not be made in a form perfectly crescent-shaped, because it will be very apparent, that the lancet so shaped, when sprung, will meet the skin at a parallel, not at an angle with it, and consequently, if I may so express myself, a down-right blow is given, instead of a cleanly drawn cut, and of course the less the scarifications, have the character of contused or lacerated wounds, the more speedily and easily is the blood obtained.

But there is another objection even to the scarificator thus improved, and one which I think of equal importance, namely, the number of the lancets. I was induced, about two years ago, in consequence of a slight difficulty in procuring at once a free flow of blood, to diminish the number of my scarifications, believing that the anastamosing cutaneous vessels were too frequently divided, and that this was the secret of the tardy bleeding. I ordered a scarificator to be made with only eight lancets, and the result of an experiment with it fully satisfied me of its utility and advantage over the former instrument. I have, since that period, given this plan a full and fair trial on the persons, of at least eight thousand patients, during the last two years; and in many instances, on the same patient, I have used the eight and fifteen lancets at the same time, and then compared the product, and I invariably found that of the scarificator armed with eight, far exceeding that with ten, twelve, or fifteen. I am induced to dwell upon this, as I know, that although many scarificators are now used constructed on my plan, still the old ones are constantly and generally in use, and I am sure if any gentleman will make the comparison, that he will give the preference to the eight lancet scarificator.

There is still one fault, or rather imperfection, appertaining to this and all other scarificators at pre-

sent, unremedied, but I believe not irremediable, which is rather dissonant than detrimental in the operation, and that is the noise of the steel lever flying back against the brass. I have, before I attempted this little and imperfect treatise, endeavoured to remedy this defect; as yet I have but partially succeeded; this improvement gives me hope that I may perfect it. To bring this instrument into action, first the depth of the lancets is to be regulated by turning the screw beneath, then drawing the steel lever up to the catch, it is ready

for scarifying, which is performed by pressure made on the brass button, situated at the side of the instrument.

The temple scarificator is merely a diminutive of the preceding: it may contain four lancets at most: but I should like to have a fair trial made with scarificators having only three lancets, which I generally use, for this reason; that as almost all the blood, is to be drawn from the smaller branches of the temporal artery, the larger branches of it are more easily avoided, when only three

lancets are employed; especially as these main vessels are irregularly distributed sometimes, and a division of one of them may prove troublesome, and moreover ought not to happen. No possible lack of bleeding need be feared, in consequence of lessening the number of incisions here, if the operation be properly performed. The larger scarificator is used on almost every part, excepting over the joints of children, and the smaller is more useful, high in the neck and behind the ear in young children. The scarificators may be always cleaned and greased

at the same time, by springing them through a piece of mutton fat.

## TORCH OR BURNER.

Various instruments have at different times been employed to hold some combustible for exhausting the glasses, and other expedients have been invented for the same purpose, without flame, but of the latter, it is quite unnecessary to say any thing, as I am quite certain that all those instruments which produce a vacuum without flame, (such as the exhausting syringe,) will

never be found in the hands of any one who is desirous of being dexterous and successful in the operation. Of the different burners, however, I may be allowed to state, that of the several ones in use, that depicted in the plate, (vide plate 1. fig. E. E.) will be found the most convenient, both for rapid use, and for making a complete vacuum in the glasses.

The tea-pot burner is truly an antiquated instrument, and seems singularly contrived to render the operation of exhausting the glass

difficult and clumsy, since there'is not the slightest necessity for such a reservoir of spirits at the end of the tube. Many cuppers have recourse to the various methods, of burning lint, tow, cotton, and tissue paper, which are, perhaps, less clumsy, but are certainly more dangerous than the tea-pot burner; for the quantity of spirits taken up by the tow is so uncertain, that the most expert cupper, with such instruments, thinks himself very fortunate if he can obtain but a small quantity of blood, without burning the patient. The burner I use is

the simplest made, consisting of a mere tube, about six inches in length, obliquely truncated at the end, where the cotton protrudes, and provided with a ring at the other extremity; the tube may be made to unscrew in the middle, for the convenience of packing into a pocket case. It is so truncated, that the cotton may be expanded better into a head. The cotton should completely and tightly fill the tube, and the end may be trimmed to a shape as above recommended.

## SPIRIT BOTTLE.

Little time need be expended in describing the spirit receiver; it matters not what it be; of course it will always be made sufficiently large to contain a proper quantity of spirit, and of a proper shape to suit the case, and there is but one recommendation as to its use, and that may seem rather paradoxical, viz. never to make use of it; what I mean is, that the cotton should never be dipped into the bottle, but a very little spirit should be poured into some cup, or one of the

glasses not in use, and the burner moistened in it, thus we are sure of obtaining just the requisite quantity of spirit, and no more; and with this precaution, there will be little danger of injuring the skin, by the sprit trickling on it while burning, an accident which is complained of, loudly, deeply, and justly.

## GLASSES.

A description of these is given at the commencement of this work; they are now generally made of glass in preference to the old me-

tallic cup, or cucurbitula. In describing them, I will merely give the quantity they should contain, without particularizing their depth, width, &c. About five glasses are required, of different sizes; three of these are of different shapes from the other two, which are called the temple glasses. The three larger are cylindrical, of the shape delineated in the plate, and should contain, successively, eight ounces, four, and three and a half, and the two temple glasses are different from the others, being narrow in the neck, and swelling in the belly, containing about

four ounces and a half and three ounces and a half; these may be considered as a set, and duplicates of any of them may be obtained, and, indeed, will be necessary, as three or four of the eight ounce glasses may be required at once, for particular parts, as on the loins in corpulent people. In choosing these glasses, I would recommend those which have the rim rather broad, rounded and smooth; these qualities answer a double purpose, viz. neither constricting the vessels as a ligature, nor cutting the patients. The glasses I use are graduated,

which is convenient when we could not otherwise accurately measure the blood, and, moreover, we need not be encumbered with a graduated receiver.

It may appear trifling to mention the necessity of being provided with sponge and strapping, but they are very essential to the cupper; they should be carried in the cupping case, and the sponge will fit well into one of the glasses; it should be a long piece, so that it may be used to surround the rim of the

glass, as it is taken off, to prevent any of the blood being spilt, and the cupper will find that it will not a little redound to his credit and self satisfaction, to have performed his task without losing any of the blood drawn; moreover he will be able more accurately to measure the quantity he has taken. A few squares of adhesive plaister, to cover the incisions, will be all that is necessary to complete what I proposed as a description of the instruments used in cupping.

It will be perceived, that this

description is comparatively a superficial one; but it should be remembered that it was not proposed to give an account of all the instruments that ever have been used in cupping, but of those now generally used, and found most useful; viewed in this light, the description may be considered as rather copious than brief, but I trust not so copious as to be burdensome, or so brief as to be deemed deficient.

I shall now proceed to give a more minute account of the opera-

tion, preparatory to the particular rules for cupping on particular situations.

In the introduction to this subject, I have mentioned some general
rules for the operation, and subsequently given a description of the
various instruments employed.

I shall now adjust these rules, and bring the instruments into combined action (they having as yet been described separately,) since they have an essential dependence on each other, and the more rapidly

the application of one follows that of another, the better may the operation be said to be performed, which indeed must depend upon individual dexterity, and is of great importance in this operation, as it is one of such constant occurrence, and because the patient can easily judge of the merits of the performance, by the duration and amount of pain inflicted.

The following pages will be occupied in considering the principles which I conceive will be of service in directing the reader how

to obtain that dexterity or tact, so essential to success.

I think it would be best to illustrate what I am going to say, by supposing that we have a patient to cup on the loins; thus all the rules may be simply shewn.

Remembering the preliminary remarks, we suppose the operator has considered the position of his patient, the part to be cupped, the relaxation of the muscles the depth of the integument, the quantity of blood required, and the number of

glasses to be applied, and their sizes.

First, the glasses to be applied are placed on the fingers and in the palm of the left hand, and all the glasses neeessary for the operation, from the number of one to six, may, with a little practice, be held at the same time; the one applied first, is held between the index finger and the thumb, in a perpendicular direction, the mouth looking upwards, and then turned down on the part, and each glass in turn is shifted between the index

finger and thumb, and held in the same direction, using those on the fingers before that in the palm.

Secondly, The lighted torch is taken in the right hand, and the glass exhausted over the part intended to be scarified, by introducing the torch into it, and then withdrawing the torch along the rim of the glass quickly and at the same time that the torch is withdrawn, the glass should descend on the skin just as the cotton leaves it. It is immaterial to what depth the cotton is introduced, pro-

vided the flame be made to circulate well in the cavity, and if this be dexterously performed, a portion of the flame will be often seen flickering in the middle of the glass, after it is applied to the skin, and thus thoroughly exhausts it. I have from repeated observation, however, found by introducing the burner or torch into the glass, to one-third of the depth of it, with a good flame, that the most perfect vacuum is obtained.

A great fault in applying the cupping glass is, holding it too high

above the part. The only precaution during this step is to avoid entrapping a portion of the cotton as it is withdrawn from the rim, but this will never be the case if the cotton is firmly fixed in the tube, so that it shall require considerable force to extract it.

The glass should never be pressed upon the skin by the hand, but should be suffered to descend lightly on the part allotted to it. I suppose that we have in this instance applied three of the eight-ounce glasses on the loins; according to

the foregoing rules, by the time the third glass is applied, the first will have accomplished the intention of ts application, namely, to induce a determination of blood to the surface, indicated by its purple hue, shewing it is time to apply the scarificator. I suppose, also, that the scarificator has been regulated by the screw beneath, to the depth of a quarter of an inch, as previously recommended, where the ineguments are thick; and I then come to the

Third step in the operation,

which I would recommend should be nearly as follows: The torch is held in and across the palm of the right hand, by the little and ring finger, leaving the thumb, the fore and middle fingers free to hold the scarificator, which may be done by the thumb and fore finger only; the glass is then grasped by the thumb, fore, and middle fingers, of the left hand, leaving the little and ring fingers free; the edge of the glass is then detached from the skin by the middle or fore finger of the right hand; the scarificator being set, care must be taken not to press

upon the button with the thumb too quickly; directly the glass comes off, we apply the scarificator, spring it through the integuments, and then placing it between the free little and ring fingers, of the left hand, we apply the torch to the glass, and the glass to the skin over the incisions, as before recommended. It is worthy of remembrance, that as soon as the glasses are applied over the scarifications, the part and glasses should be immediately covered and defended from the cooling effects of the external air, which materially retards the bleeding. It will be perceived by this arrangement, that there is the most economical use of the fingers; and I particularly recommend this to the practice of cuppers, as by constant practice, I am enabled easily to hold six glasses in one hand, if required, and apply them without losing time. This third part of the proceeding, a very important part, may be practised on a table just as easily as on the patient; and I am in the habit of recommending it to gentlemen, taking care, of course, that the lancets are not allowed to strike the table.

I have mentioned that the glass should be suffered to descend lightly upon the skin, when in the act of exhausting it, that it should not receive additional weight from the hand: if thoroughly exhausted it will fix itself firmly enough. From an anxiety to assist the fixture of the glass in its position, the error of pressing it happens, and the patient will complain that he is heavily cupped. Perhaps it may afford the best practice, if cupping be attempted over a surface of water in a large hand basin. A steadiness and lightness of hand, and an accuracy of eye are required, to bring the water up into the exhausted glass, without extinguishing the torch, or scattering abroad the water.

The glasses are to be re-applied when the vessels have ceased to bleed into them. This may be known by the blood coagulating; but if the vessels bleed very freely, the glasses will be nearly filled, and would consequently drop off, therefore it is better to remove them always when they are two-thirds full, though the bleeding

continues, and then replace them till the required quantity of blood be obtained.

It is an unalterable rule never to make incisions twice on the same spot, as it was a custom formerly, making so many crucial, and indeed, cruel incisions; and besides, it is as useless as severe, and often causes an insurmountable dread in the patient to the repetition of the operation; whereas if cupping be properly conducted, the patient is not conscious of any cutting, but merely complaining of a sensation

of weight from the pressure of the air upon the glasses.

I have not yet mentioned the mode of taking off the glasses filled with blood; of course it is necessary to do this without spilling the blood, or allowing it to run down on the clothes of the patient, and this will be best performed in the following manner: - We take a long piece of sponge, as recommended before, and if the patient be in a situation so that the position can be changed, it will be advisable to render the glass, which was before

perpendicular, or nearly so, somewhat depending, and thus give the blood no chance of escaping, it is to be taken off by inserting the fingernail under its rim, and wiping the coagulum into the glass with the sponge.

But if the position cannot be altered, and the glass is, perhaps, perfectly perpendicular, we must let the air into the glass, taking care not to let the blood out, and then, when we feel the glass is perfectly moveable, suddenly turn it up, plugging its mouth at the same time,

and sweeping all the blood with the sponge into it.

Supposing the requisite quantity of blood be obtained, there only remains for me to describe the method of treating the scarifications. The application of two narrow straps of adhesive plaster will bring the edges of the scarifications together, and ordinarily nothing further is required. Occasionally there is a small artery wounded, as on the shoulder, side, and chest, in such instances a compress of lint, under the strapping, is generally effectual.

I shall mention the method of stopping the bleeding of any considerable or irregular branch of the temporal artery, when the operation on the temple is described, and the remaining portion of the treatise will comprehend the various rules which experience has suggested, relative to cupping on those parts usually subjected to the operation; these will be successively considered, and the parts most generally operated on will be first treated of. I prefer this arrangement, as displaying the simpler rules first, thus conducting the reader to the more

complicated; not that there is actually any thing complex in the whole art of cupping, but there is a combination of tact and judgment necessary, as for instance in cupping on the temples, which requires the best attention of the learner. Adhering to an original plan, of compiling a manual and portable work, I shall endeavour to be as succinct and concise as possible, at least, so far as may be consistent with an intelligible description. I will begin with the operation on the

## BACK OF THE NECK.

Of all situations, this is decidedly the most subject to cupping. When ten or twelve ounces of blood are required from this part, three glasses are necessary, if the shoulders be broad and muscular, two eight ounce glasses and a four ounce; the four ounce glass is applied high over the cervical vertebræ, and one of the eight ounce glasses on either side, lower down, about an inch and a half from the first glass. But before the glasses are applied we must remember to relax the muscles of the neck, by bending the head slightly backwards.

It should be remembered, also, that in springing the lancets over the spine, they should not be deeply set, if the fingers, as mentioned elsewhere, cannot regulate the depth of the incisions, The scarifications over the spine should not penetrate more than the sixth of an inch, while for either side the lancets may be set for a fifth of the inch.

The direction of the scarifications on this part should be in the course

of the spine, and not transversely, with the full-sized scarificator.

In thin persons the four-ounce glasses are more easily applied, and very frequently in slight patients one glass only, applied high up is sufficient.

The same position of the patient should be maintained while the glasses remain on, as but a slight action of the muscles will throw them off; and the water used should be as hot as it can conveniently be

borne, for the sake of encouraging the bleeding.

There is one observation particularly applicable to cupping on the neck and head, namely, that the burner, after quitting the glass, should be drawn away from the head downwards; if it be drawn to one side, probably the appearance of the cap or patient's head on fire will remind the operator of the necessity of this precaution.

BETWEEN THE SHOULDERS.

This is also a common situation

requiring cupping, but the directions for performing it will not differ materially from those recommended for the back of the neck. Three four-ounce glasses are most conveniently applied: the first high up on the spine, between the scapulæ, and one on either side of the spine, at the inferior angles of the scapulæ; the arms should be brought slightly forward, to give a little more room for the glasses. The incisions are to be made obliquely, with the large scarificator; on this part the cupping glasses should be thoroughly exhausted,

and then we may always be sure of a very full bleeding.

## ON THE LOINS.

The muscles should be relaxed completely, and this can scarcely be accomplished in a sitting posture; the patient is, therefore, to lie down, and by a pillow under the chest a slight curvature is given to the spine, which relaxes the muscles more completely than any other position that I have tried. However the cupping can be performed in the sitting posture, when it is most convenient to the patient,

but it is very inconvenient to the cupper. It should, notwithstanding, be always borne in mind, while cupping on this, or any other part, that the greatest convenience to the patient, is to lessen the duration of the operation, by procuring the blood as quickly as we can, and a slight inconvenience in position must be overlooked, occasionally; here the sitting posture, is somewhat unfavourable to the flow of blood, and ought not to be allowed, unless strongly desired. When the position is recumbent, the loins present ample space, and room enough for the application of the larger glasses, from three to six in number.

I generally apply two on each side of the spine, but the number of glasses is entirely dependent on the quantity of blood ordered. When the person to be cupped is sitting, two glasses only are convenient, and these should be placed on each side of the spine, just above the hips.

The incisions on this part should be made obliquely, with the large scarificator, the vessels generally bleed copiously, the lancets set to a quarter of an inch, and the glasses should be exhausted as much as possible.

## ON THE BACK.

Here the instructions for the preceding situation will equally apply in all points, with one or two cautions in addition; we must be careful not to place the glasses too near the spine, as the contraction, and consequent tension of the strong extensor muscles, prevents the flow of blood, by closing the mouths of the superficial vessels; and if the

glasses are applied over the ribs, the scarifications must be made in the course of the rib, and never transversely, as it will be very apparent, that the minute arterial branches, of those emerging from between the ribs, will be much more likely to be cut by incisions made across them, than in the direction by which they escape, and in their courses.

## SACRUM.

The large scarificator is employed, and the lancets should be set to a sixth of an inch, and then any nerves taking an irregular or superficial course will be avoided.

Three glasses are usually employed; one over the sacrum, and one on each side. The glass over the bone should be lightly exhausted, as otherwise the pressure from the rim on the integuments against the bone will prevent the ingress of blood. The glasses on the sides, however, do not require this precaution, but should be exhausted as usual.

#### HIP.

On the hip there is generally a good space for the glasses; the patient should lie on the side, with the thigh flexed. The eight ounce glasses may generally be employed, but sometimes the four ounce are more convenient. Four glasses are very easily applied, and their relative positions should be in a circle round the trochanter major; if fewer glasses be sufficient, they may be applied in any situation round the trochanter; the operation of cupping upon the hip, is perhaps one of the most satisfactory in its results to the patient and cupper.

The course of the arteries here demand no particular direction for the incision, and as the glasses are not applied over the bone, the lancets may sink nearly the full quarter of an inch, the largest scarificator being used: the dept of the lancet incisions are to be regulated, however, according as the patient may be corpulent or otherwise.

I have now given, as briefly as possible, those directions which seem

most important for cupping on different regions of the trunk situated posteriorly, and I may now give the rules applying to the anterior parts.

# ON THE THROAT.

The best position for the patient, and most convenient for the cupper, in this instance, is that of leaning backwards, with the head thrown slightly back, supported by pillows. A light and rather superficial cut should be made, as the vessels generally bleed very freely, the lancets projecting about the seventh of an inch. Of course the glasses should

never be applied over the trachea, as they would impede respiration; but on both sides of the air tube, a round or oval glass may be applied with good effect: in this case also the large scarificator is employed.

It is of little moment what direction the incisions take.

# ON THE CHEST.

The position is immaterial, excepting that the convenience of the patient should be consulted. The female mammæ frequently prevent the application of more than one

large class, which should be applied directly over the upper part of the sternum, and generally, if this single glass be well exhausted, blood will be abstracted freely. Where the mammæ do not interfere, another glass may be placed about two inches below the first, and more than two glasses are never required, or are indeed capable of being applied without including some small portion of the breast, at all times a dangerous and highly painful experiment inducing irritation and inflammation in the organ, counterpoising all the good effects of the

operation. In the female also I have known, five or six times, a small branch of the external mammary artery wounded: this may be stopped by pressure with a small dosil of lint under adhesive plaister; if this should not succeed, the application of the common devil's puff, or lycoperdon, instead of the lint, and strapped down, will be found a very useful application in this and many other instances; indeed, I never knew it fail: it is to be found generally in dry meadows, and in the downs in the country.

In the male, the chest presents a space generally sufficient for the application of any number of glasses that the case may demand; the course of the incisions should invariably be in the course of the rib, for a very obvious reason, viz. the chance of wounding more vessels.

Attention to the direction of the incisions is one of the most important precepts in cupping, generally making the difference, whether blood is obtained freely or not, and is exemplified abundantly in this particular instance, if the incisions

are made across the rib, the quantity of blood is almost sure to be trifling and inefficient. The large scarificator is used, set to the usual depth.

# PIT OF THE STOMACH:

Here, three glasses are usually applied, but the number must depend entirely on the amount of blood to be drawn. One of the glasses rests over the ensiform cartilage, one on each side of it, on the margin of the ribs, about three inches distant from the first glass. The glasses should be well exhausted; the blood here generally

flows, but very slowly, and this is the case particularly in females.

#### ABDOMEN.

There are some cautions which should be remembered when we are about to cup on this part, under particular circumstances.

In dropsical persons the veins of the abdomen are sometimes large and very much distended, and their course very apparent, but if they should be inadvertently wounded, there generally follows a troublesome and tedious bleeding, the more troublesome as pressure cannot be effectually employed; and there may ensue also an equally troublesome abcess, which I have seen happen on such occasions, by extravasation of blood, from the divided vein. It is better, therefore, in all such patients, to seek for these veins, in order to avoid them.

Four large glasses should generally be applied on the sides of umbilicus; more glasses are here required, in consequence of the lax state of the integuments, which rise into the glass when it is exhausted

so as nearly to fill it, but this depends much on the person of the patient and state of the parts; it may be remedied by placing a pillow under the loins, so as to render the skin of the abdomen more tense and firm. The large scarificator is used, set to the usual depth, and the incisions should be made transversely.

#### GROIN.

When cupping is required on the groin, in consequence of bubo or other circumstances, the patient may be in the recumbent posture, and

either a round or oval glass applied, which should be well exhausted, but before applying it, the hair on the part should be entirely removed.

The incisions are made in the same direction as advised for the last-mentioned part, with the large scarificator set to a quarter of an inch.

# SIDE.

The principal thing I have to recommend in cupping on the side is, that the incisions should be parallel with the rib, and never at right angles to it, the blood flowing freely or slowly, according to the direction, of the scarifications, as before observed and repeated, because it is a very important point to be remembered, the more especially as we are so often called upon to cup the side.

The blood flows freely from this part, if the glasses be moderately exhausted. Three or four are adapted with ease; round ones are to be preferred, as making less pressure on the vessels, but sometimes the oval are more fitted for this part.

Cupping on the extremities is

constantly ordered, and may be practised with great success. Some directions and cautions are, indeed, necessary, and having finished the remarks on cupping the different regions of the trunk, I shall state some respecting the extremities, and in doing so, I give the different parts successively, for the convenience of reference.

### SHOULDER.

The oval glasses are commonly necessary, three in number; one applied just below the spine of the scapula behind, another just below

the clavicle before, and the third on the top of the shoulder. The glass behind should be a round one, as there it will generally fix well. The shoulder being muscular, the lancets of the large scarificator may be allowed to cut deeply, and the glasses should be exhausted as nearly as can be.

# ELBOW.

This joint, and, indeed, any of the joints, being usually inflamed and swollen when cupping is required, afford a good space for the application of a couple of four-

ounce glasses, either oval or round, one above and the other below the joint, on the outer side, the fore arm being flexed and lying prone on a pillow; the large scarificator is used, excepting the patient be a child, but it must not be set too deeply; it ought to cut across the muscles, and the glass should be well exhausted, there being no pressure against the bone, which might prevent the blood flowing freely into them.

### WRIST.

A round glass may be applied

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either on the fore or back part of the wrist; the blood generally comes very freely, and if any considerable vein should be wounded, it may be easily stopped by pressure. I am in the habit of cutting longitudinally, about one-fifth of an inch deep on this part, finding from experience that the greatest number of vessels are thus wounded. The small scarificator is more applicable to this part than the larger: but if there be space sufficient for the application of the large one it is to be preferred.

## THIGH.

Any part of the thigh may be cupped conveniently with round four ounce glasses, using the large scarificator. There are no particular circumstances or rules which require any comment, excepting that if the cupping be ordered in the course of the sciatic nerve, the glasses may be placed in a line, one after the other, in the course of this nerve, along the posterior part of the thigh, using smaller glasses as we approach the knee. The incisions may penetrate nearly a quarter of

an inch in depth. I generally cut longitudinally, and the blood flows speedily.

#### KNEE.

Cupping on the knee is generally as successful as on any part of the body. As on the elbow, the round glasses should be used if convenient, one on each side, and the large scarificator, excepting children be the subjects of the operation, then the smaller one is better. Ten, twelve, and fourteen ounces of blood may be procured from the

knee, by skilful application of the instruments.

The articular vessels are most freely divided by cutting longitudinally. The scarificator should not be set so as to wound the joints, and its depth must be left to the judgment of the cupper.

### ANKLE JOINT.

When this part is cupped, a glass is placed over each malleolus, and as large as the surface will admit; it should be moderately exhausted,

and the blood flows commonly with great freedom.

### TEMPLE.

Cupping on the temple is at once the most difficult to perform, (and if properly managed,) the most successful of any of the varieties of the operation; one of the difficulties is, properly to exhaust the glass; another to avoid the main branches of the temporal artery; and the last, to obtain blood when the glass is exhausted.

Before the glass is used, the razor

should be employed, to take off the hair closely, and clear a sufficient space for its application; and it should be borne in mind, that the want of success in fixing the glass, may depend on a single hair insinuated beneath the rim, and allowing passage to the air. When a space is thus denuded, it should be well surveyed, to detect the course of the branches of the artery, and of these, two are generally seen, the anterior and posterior, diverging, one forwards, the other backwards, on the temporal bone; and if they should not be seen plainly, they are easily

felt; and even if the touch should not detect them, they may be rendered prominent by applying a glass on the part: these are the only arteries to be avoided. It is true I have known an instance of the trunk itself being wounded, an ac cident which a little caution would have prevented. In this case the glass was applied close to the ear. No precise spot can be pointed out for the scarification, as that will vary with the variations of the branches of the artery, but near the junction of the temporal parietal and occipital bones is the usual situation: here the space between the anterior and posterior branches of the artery is generally wide enough for the glass, which should be a four ounce full bellied one, with a small mouth, which being affixed, is suffered to remain a few seconds, and then taken off in the usual manner, by inserting the nail under its rim. The mark on the skin indicates the spot for scarification, which should be done before the tumefied integuments subside, with the lancets projecting one-eighth of an inch, and so saving much pain to the patient. The depth to which

the lancets are set, must of course vary with the varying thickness of the integument and muscle.

As soon as the lancets have passed through the skin, there is a liberal supply of blood, and the glass is reapplied and fixed as firmly as possible, and the result of this movement is, that not a drop of blood is poured into the glass; the cause is obvious; the blood drawn from the temple is almost entirely arterial, the soft parts beneath the rim of the glass are not sufficient, to prevent the temporary obliteration of the trunks of the

supplying branches of the artery, by the pressure made on them between the edge of the glass and bone, and it should follow, that as soon as this pressure is taken off, the influx of blood ought to begin to fill the glass, which is precisely the case, and the nicety consists in relieving the compressed vessel. The lower edge of the glass of course is the point, where the blood is beating for admittance, and is the part therefore to be raised. To do this, make a fulcrum of the upper edge, applying both hands to the glass, a piece of sponge guarding

the lower edge to prevent the admission of air, and then pressing the upper edge on the bone downwards, and the lower from it upwards equally, with a very gradually applied force, till the blood begins to spring from the scarifications, and at that point, maintain the elevation of the glass. The glasses may be reapplied, treated in the same way, and almost any quantity of blood obtained.

If, after cupping, the bleeding be troublesome, and it cannot be stopped by lint and strapping, a bandage applied round the head is the best method, and will always be found quite sufficient a means to stop the bleeding.

### SCALP.

The scalp should be shaven, and the incisions of the same depth as on the temple; the glass, if the bleeding be not free, should be raised altogether, to relieve any vessels which may be pressed by it.

### BEHIND THE EAR.

This part should be prepared by

shaving, as in the temple case, but a round glass, excepting the patient be very stout, cannot easily be applied, an oval one therefore, is to be fixed just above the mastoid process of the temporal bone. The blood obtained from this part is chiefly arterial, and if the divided vessels should bleed slowly, the lower edge of the glass must be raised, in the same manner as directed for the temple. The depth of the incisions is, on an average, the sixth of an inch.

## PERINEUM.

To cup here, the patient should be in the same position as for the operation of lithotomy; any hair on the part should be completely removed, and the patient should support the scrotum firmly, or the skin will be drawn into the glass.

If the blood be ordered to be drawn directly from the perineum over the urethra, one large oval glass is applied, and well exhausted, as the laxity of the skin requires it.

If the common large scarificator is

used, is should be set to a depth not exceeding the fifth of an inch at most, and in spare subjects not more than a sixth.

Some years since, I had a scarificator made with four lancets on each side of the face, leaving a space in the middle, which is applied exactly over the urethra, and thus avoiding any danger of wounding this canal, and at the same time enabling me to scarify more deeply, as there is otherwise some difficulty in obtaining a plentiful supply of blood quickly, from a more superficial scarification. Should there be any doubt about the safety, or success of operating over the urethra, glasses applied immediately over each tuberosity of the ischia, will answer precisely the same end, drawing the blood from the same local vessels.

If there be any timidity in using the common scarificator, I would recommend that the oval glass should be applied on each side of the rapha, and having myself tried this place, I can state that it is very successful.

## DRY CUPPING.

I need scarcely remark on this subject, that when dry cupping is ordered, either simply over sound integuments or over punctured poisoned wounds, the glass should be exhausted as completely as possible.

## SECONDARY HÆMORRHAGE.

It will frequently occur that the cupper is called upon to perform the the operation, upon patient's suffering from enlarged liver, or spleen, and oftentimes where there are pur-

pulur irruptions; and in these cases I have generally found, that secondary bleeding takes place, as there is an extreme want of contractility in the vessels; and this bleeding is sometimes very troublesome to check, in consequence of our not being able to make use of much pressure. In order, however, to have the wounded vessels under our command, we may be cautious to make the incisions rather superficially. If the bleeding cannot be stopped by lint and strapping, and it takes place from any distinct vessels, it is advisable to use a very

fine suture, with a small piece of lint tied down upon the mouth of the vessel, and by this means it is invariably plugged.

FINIS.

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